

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER NO. R5-2006-\_\_\_\_

CEASE AND DESIST ORDER  
REQUIRING  
EXXONMOBIL PRODUCTION COMPANY  
HILL LEASE, SOUTH BELRIDGE OIL FIELD  
KERN COUNTY

TO CEASE AND DESIST  
FROM DISCHARGING CONTRARY TO REQUIREMENTS

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Regional Board) finds that:

1. ExxonMobil Production Company, a subsidiary of Exxon Mobil Corporation, which is a corporation organized and existing under the laws of the State of New Jersey (hereafter Discharger), owns and operates a wastewater disposal facility consisting of four unlined surface impoundments at the Hill Lease in the South Belridge Oil Field, Kern County.
2. Waste Discharge Requirements (WDRs) Order No. R5-2004-0080, adopted by the Regional Board on 4 June 2004, prescribes requirements for the discharge to the unlined impoundments of non-hazardous produced water and water treatment plant backwash water resulting from the Dischargers' oil field production.
3. The Hill Lease consists of approximately 480 acres in the N½ and SW¼ of Section 19, T28S, R21E, MDB&M (Assessor Parcel No. 085-210-10-2).
4. The impoundments cover approximately 17.5 acres on the lease. Approximately 4,300 barrels/day (180,000 gallons/day) of wastewater are discharged to the impoundments for disposal by solar evaporation and percolation.

**HYDROGEOLOGY AND GROUNDWATER INFORMATION**

5. The Discharger is conducting an investigation to evaluate the hydrogeology and groundwater conditions in the area. Borings and monitoring wells are being installed at locations in Section 18, T28S, R21E, MDB&M to define the extent of groundwater impacts by wastewater.
6. At the Hill Lease, sediments of Holocene age consist of three stratigraphic units. The youngest unit is Alluvium, which consists of alternating sand, silt, and clay. Underlying the Alluvium is the 22K sand. Below the 22K sand is the Corcoran Clay Equivalent, which was deposited on the underlying Tulare Formation of Pleistocene age.
7. A regional unconformity is at the base of the Tulare Formation. Above the unconformity, the Tulare Formation and overlying Holocene sediments gently dip and thicken to the east-northeast towards the San Joaquin Valley. Wastewater can migrate towards useable groundwater aquifers in the San Joaquin Valley.

8. The Discharger has installed eight groundwater monitoring wells at the Hill Lease. The well screens are installed across the first water-bearing zone in the Alluvium. The chemical characteristics of water samples from five of the eight monitoring wells (MW-1, MW-2, MW-5, MW-7, and MW-9) indicate that groundwater has been impacted by wastewater migrating from the impoundments. Wastewater impacts in groundwater extend in a north to northeast direction into the southern half of Section 18, T28S, R21E, MDB&M.

### WASTEWATER CHARACTERISTICS AND CLASSIFICATION

9. To protect the beneficial uses of groundwater and to prevent its degradation, the *Water Quality Control Plan for the Tulare Lake Basin, Second Edition* (Basin Plan) contains maximum salinity limits for the disposal of petroleum production wastewater in unlined impoundments overlying groundwater with existing and future probable beneficial uses. The maximum concentration limits are: electrical conductivity @ 25°C, 1,000 µmhos/cm; chloride, 200 mg/L; and, boron, 1 mg/L.
10. More than 1,500,000 barrels of non-hazardous wastewater (produced water and water softener filter backwash) is discharged to the impoundments annually. Recent and historical analytical results indicate that wastewater in the impoundments has the following characteristics:

<u>Parameters (units)</u>	<u>Concentration</u>
Electrical Conductivity @ 25°C (µmhos/cm)	35,000
Total Dissolved Solids (mg/L)	19,000
Chloride (mg/L)	11,000
Boron (mg/L)	69

The salinity concentrations in the wastewater significantly exceed the numerical salinity limits contained in the Basin Plan.

11. Non-hazardous waste that contains pollutants that, under ambient environmental conditions at a waste management unit, could be released in concentrations exceeding applicable water quality objectives or that could reasonably be expected to affect beneficial uses of the waters of the state is defined in California Water Code, Section 13173 (b) as "Designated Waste." The wastewater exceeds applicable water quality objectives and has the potential to affect beneficial uses of waters of the state and, therefore, is classified as designated waste.

### COMPLIANCE ISSUES

12. The impoundments are unlined and do not meet the prescriptive construction criteria for Class II surface impoundments as specified in Title 27, California Code of Regulations, Section 20005, et seq (hereafter Title 27).
13. The Time Schedule contained in Provision C.12 of WDRs Order No. R5-2004-0080 requires that the Discharger complete and submit a final hydrogeologic investigation and long-term wastewater disposal plan Final Report by 30 September 2005. The Discharger failed to submit the final hydrogeologic investigation. Regional Board staff issued a Notice of Violation dated 12 October 2005. The Discharger is currently completing the investigation.

14. The Time Schedule contained in Provision C.12 of WDRs Order No. R5-2004-0080 also requires the Discharger to achieve compliance by 30 June 2006. Compliance with the WDRs is achieved when a long-term wastewater disposal plan consistent with current state regulations and policy is implemented and the discharge of wastewater to the impoundments ceases.
15. The Discharger has stated that the long-term plan to achieve compliance consists of additional treatment of wastewater so it can be recycled, and increased subsurface injection of wastewater in disposal wells permitted by the California Division of Oil, Gas, and Geothermal Resources.
16. On 27 February 2006, the Discharger notified Regional Board staff by telephone that additional time, past the 30 June 2006 compliance date, is needed to implement the compliance plan and cease the discharge of wastewater to the impoundments. On 9 March 2006, Regional Board staff met with and received correspondence from the Discharger describing the reasons for requesting an extension. The extension is needed because: (1) the initial engineering technology selected was later determined to be inadequate for treatment system requirements; and, (2) the impacts on engineering and personnel resources and equipment manufacturing firms, caused by Gulf Coast hurricanes during 2005, have increased the time needed to receive and install treatment system equipment required to achieve compliance.

### **REGULATORY CONSIDERATIONS**

17. As a result of the events described in Findings 13-16, it is appropriate to propose a new time schedule to achieve compliance.
18. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies for all waters of the Basin.
19. The beneficial uses of groundwater beneath the area, as designated by the Basin Plan, are municipal and domestic supply, agriculture supply, and industrial service supply.
20. The action to adopt WDRs for existing facilities is exempt from the provisions of the California Environmental Quality Act (Public Resources Code 21000, et seq.), in accordance with Title 14, California Code of Regulations, Section 15301.
21. Section 13301 of the California Water Code states in part:  
  
*“When a Regional Board finds that a discharge of waste is taking place or threatening to take place in violation of requirements or discharge prohibitions prescribed by the regional board or the state board, the board may issue an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventive action.”*
22. Section 13267(b) of the California Water Code states:  
  
*“In conducting an investigation specified in subdivision (a), the Regional Board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political*

*agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the Regional Board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the Regional Board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”*

23. The technical reports required by this Order are necessary to assure compliance with WDRs Order No. R5-2004-0080 and this Order, and to assure protection of waters of the state. The Discharger owns and operates the facility that discharges the waste subject to this Order.

24. California Water Code Section 13268 states, in part:

*(a)(1) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267, or failing or refusing to furnish a statement of compliance as required by subdivision (b) of Section 13399.2, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b). and,*

*(b)(1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with Section 13323) of Chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.*

25. California Water Code Section 13350 states, in part:

*(a) Any person who (1) violates any cease and desist order or cleanup and abatement order hereafter issued, reissued, or amended by a regional board or the state board, or (2) in violation of any waste discharge requirement, waiver condition, certification, or other order or prohibition issued, reissued, or amended by a regional board or the state board, discharges waste, or causes or permits waste to be deposited where it is discharged, into the waters of the state, or (3) causes or permits any oil or any residuary product of petroleum to be deposited in or on any of the waters of the state, except in accordance with waste discharge requirements or other actions or provisions of this division, shall be liable civilly, and remedies may be proposed, in accordance with subdivision (d) or (e) . . .*

*(e) The state board or a regional board may impose civil liability administratively pursuant to Article 2.5 (commencing with Section 13323) of Chapter 5 either on a daily basis or on a per gallon basis, but not both.*

*1. The civil liability on a daily basis may not exceed five thousand dollars (\$5,000) for each day the violation occurs . . .*

*(B) When there is no discharge, but an order issued by the regional board is violated, except as provided in subdivision (f), the civil liability shall not be less than one hundred dollars (\$100) for each day in which the violation occurs.*

26. This Order is consistent with the antidegradation provisions of State Water Resources Control Board (hereafter State Board) Resolution 68-16. Provided the Discharger complies with the Order, discharges in the future should not cause adverse impacts on groundwater.
27. The issuance of this Order is an enforcement action taken by a regulatory agency and is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.), pursuant to Section 15321(a)(2), Title 14, California Code of Regulations.
28. After due notice to the Discharger and all other interested persons, the Regional Board conducted a public hearing at which evidence was received to consider a Cease and Desist Order.
29. Any person adversely affected by this action of the Regional Board may petition the State Board to review the action. The petition must be received by the State Board within 30 days of the date of issuance of this Order. Copies of the law and regulations applicable to filing petitions are available at [http://www.waterboards.ca.gov/water\\_laws](http://www.waterboards.ca.gov/water_laws) and will be provided upon request.

IT IS HEREBY ORDERED, pursuant to Sections 13301 and 13267 of the California Water Code, ExxonMobil Production Company, its agents, successors, and assigns, shall cease and desist from violating the requirements of Waste Discharge Requirements Order No. R5-2004-0080 and in accordance with the following time schedule, implement the following tasks to ensure compliance with Provisions contained in WDRs Order No. R5-2004-0080, and/or any superseding permits or orders adopted by the Regional Board.

1. By **31 August 2006**, the Discharger shall submit a *Compliance Progress Report* that describes the work completed to improve the facilities and those work tasks remaining to complete the facility improvements.
2. By **31 October 2006**, the Discharger shall submit a second *Compliance Progress Report* that describes the work completed to improve the facilities and those work tasks remaining to complete the facility improvements.
3. By **31 December 2006**, the Discharger shall have completed all required facility improvements; the facilities shall be operating in accordance with the long-term wastewater disposal plan and wastewater discharge to the impoundments shall have ceased.
4. By **28 February 2007**, the Discharger shall submit the Final Report describing the results and conclusions of the hydrogeologic investigation. The Final Report shall include a *Corrective Action Plan* describing potential corrective action and select the corrective action and groundwater monitoring program that best addresses the conclusions of the Final Report.

This time schedule supersedes the Time Schedule contained in Provision C.12 of Order No. R5-2004-0080. The Discharger shall comply with all other limitations, specifications, and provisions of Order No. R5-2004-0080.

All technical reports required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the supervision of persons registered to practice in California pursuant to California Business and Professions Code, Sections 6735, 7835, and 7835.1. As required by these laws, completed technical reports must bear the signatures(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.

Any person signing a document submitted under this Order shall make the following certification:

*"I certify under perjury of law that I have personally examined and am familiar with the information submitted in this documents and all attachments and that, based on my knowledge and on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."*

IT IS FURTHER ORDERED THAT pursuant to California Water Code Section 13223, if in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement or may issue a complaint for administrative civil liability.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region on \_\_\_\_\_.

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PAMELA C. CREEDON, Executive Officer

DLW/fmc: 5/30/06